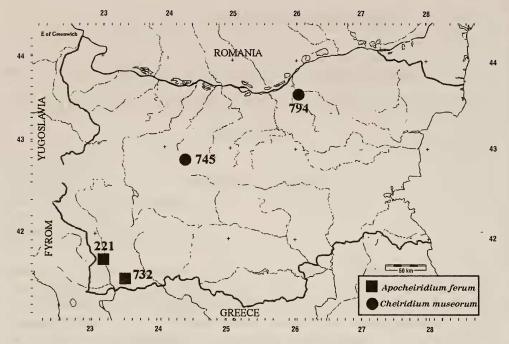
## Cheiridiidae H. J. Hansen (Arachnida: Pseudoscorpiones), a new family for the fauna of Bulgaria

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The pseudocoscorpion family Cheiridiidae comprises about 70 species (HARVEY, 1990). Members of the family are distributed in the lands of the Old and the New World. Only two genera, *Apocheiridium* J. C. Chamberlin and *Cheiridium* Menge with one species each are known to occur in Europe. Because of the small size, representatives of the family are frequently overlooked by collectors of terrestrial arthropods and thus are rarely reported in pseudoscorpion papers.

In adjacent to Bulgaria countries, *Apocheiridium ferum* (E. Simon) was reported from Romania (Dumitresco & Orghidan, 1964), *Cheiridium museorum* (Leach) from the former Yugoslavia (Ćurčić, 1974), Romania (Harvey, 1990) and Greece (Pavesh, 1876). For the fauna of Bulgaria, Beron (1996) reported that Cheiridiidae occurs in the country. In fact, there are no published records of this occurrence (Petrov, 1997). In his work on the rich pseudoscorpion collection stored in the National Museum of Natural History (Sofia), Beron (in litt.) have identified among his samples *Apocheiridium ferum* from Kresna gorge (SW Bulgaria). Lately, he has never published officially this species for Bulgaria.

Due to recent reorganization in the Museum's collections I was not able to study the specimens collected by Dr. P. Beron, nor found other samples containing Cheiridiidae species. During my research trips in Bulgaria, in 1999 I collected representatives of both genera represented in Europe. The material is deposited in the arachnological collection of the National Museum of Natural History (Sofia). Collection's number is indicated in square brackets. Measures were taken under binoculare light microscope with magnification of 87,5 x.



Figs. 1. Distribution of Apocheiridium ferum and Cheiridium museorum in Bulgaria

### Apocheiridium ferum (E. Simon)

**Material examined:** SW Bulgaria, 3 km from Kalimantzi towards Goleshevo, Distr. Petrich, alt. 600m, under bark of *Platanus orientalis*, 6.06.1999, B. Petrov, B. Barov leg.,  $3 \circlearrowleft \circlearrowleft$ ,  $9 \circlearrowleft \circlearrowleft$ , 1 tritonymph [NMNH-732].

Other locality: SW Bulgaria, Gorna Breznitza, Distr. Blagoevgrad, alt. 420 m, under bark of *Platanus orientalis*, 30. 04. 1971, P. Beron leg. et det., 3 specimens [NMNH-221], (not seen).

Specimens from the first locality were collected under the bark of a single oriental plane together with *Chernes similis* (Beier). All measured characters did not show significant deviations from the measures and ratios pointed by BEIER (1963) and HELVERSEN (1966) although specimens from central Europe are a bit larger in size.

Measures of 3  $\circlearrowleft$  and 9  $\circlearrowleft$  (in millimeters): Cephalothorax length 0.328-0.342 ( $\circlearrowleft$ ), 0.342-0.371 ( $\circlearrowleft$ ), 0.314 (tritonymph); Pedipalps: Trochanter length 0.143 ( $\circlearrowleft$ ), 0.143-0.157 ( $\circlearrowleft$ ), 0.128 (tritonymph); breadth 0.1-0.117 ( $\circlearrowleft$ ), 0.114-0.117 ( $\circlearrowleft$ ), 0.09 (tritonymph); Femur length 0,285-0.314 ( $\circlearrowleft$ ), 0.299-0.328 ( $\circlearrowleft$ ), 0.257 (tritonymph); breadth 0.06-0.07 ( $\circlearrowleft$ ), 0.06-0.07 ( $\circlearrowleft$ ), 0.057 (tritonymph), mean ratio 4.6 ( $\circlearrowleft$ ), 4.8 ( $\circlearrowleft$ ); Tibia length 0.228 ( $\circlearrowleft$ ), 0.242-0.271 ( $\circlearrowleft$ ), 0.2 (tritonymph); breadth 0.09 ( $\circlearrowleft$ ), 0.09 ( $\circlearrowleft$ ), 0.07 (tritonymph); mean ratio 2.5 ( $\circlearrowleft$ ). 2.9 ( $\circlearrowleft$ ); Chelal palm breadth 0.109-0.117 ( $\circlearrowleft$ ), 0.114-0.128 ( $\circlearrowleft$ ), 0.1 (tritonymph); length 0.214-0.228

( $\circlearrowleft$ ), 0.228-0.242 ( $\circlearrowleft$ ), 0.214 (tritonymph); Chelal finger length 0.185-0.2 ( $\circlearrowleft$ ), 0.185-0.214 ( $\circlearrowleft$ ), 0.185 (tritonymph).

#### Cheiridium museorum (Leach)

Material examined: N Bulgaria, Ribaritza, Distr. Teteven, Central Stara planina mountain, alt. 800 m, in dried straw in cattle-shed, 4.07.1999, B. Petrov, K. Russkov leg., 4 ♂♂, 3 ♀♀ [NMNH-745]; N Bulgaria, Pisanetz, Distr. Russe, Natural park "Russenki Lom", alt. 140 m, karstic niche Golyamata peshtera, under dried dung and sand, 3.10.1999, B. Petrov, N. Simov leg., 2 ♂♂, 1 ♀ [NMNH-794].

In the first locality were also collected *Chelifer vancroides* (Linnaeus), *Chernes hahni* L. Koch. The same microhabitat of the second locality were inhabited also by *Diplotemnus insolitus* Chamberlin and *Chernes similis* (Beier). Measures correspond with those pointed by BEIER (1963) and HELVERSEN (1966).

Measures of 6  $\circlearrowleft$  and 4  $\circlearrowleft$  (in millimeters): Cephalothorax length 0.342-0.385 ( $\circlearrowleft$ ), 0.342-0.399 ( $\circlearrowleft$ ); Pedipalps: Trochanter length 0.143-0.157 ( $\circlearrowleft$ ), 0.150-0.157 ( $\circlearrowleft$ ); breadth 0.114 ( $\circlearrowleft$ ), 0.114 ( $\circlearrowleft$ ); Femur length 0,371-0.406 ( $\circlearrowleft$ ), 0.371-0.399 ( $\circlearrowleft$ ); breadth 0.07-0.08 ( $\circlearrowleft$ ), 0.07-0.09 ( $\circlearrowleft$ ); mean ratio 5.2 ( $\circlearrowleft$ ), 4.8 ( $\circlearrowleft$ ); Tibia length 0.271-0.285 ( $\circlearrowleft$ ), 0.271-0.299 ( $\circlearrowleft$ ); breadth 0.1-0.114 ( $\circlearrowleft$ ), 0.1 ( $\circlearrowleft$ ); mean ratio 2.6 ( $\circlearrowleft$ ). 2.9 ( $\circlearrowleft$ ); Chelal palm breadth 0.143 ( $\circlearrowleft$ ), 0.143 ( $\circlearrowleft$ ); length 0.257-0.285 ( $\circlearrowleft$ ), 0.271-0.285 ( $\circlearrowleft$ ); Chelal finger length 0.2-0.228 ( $\circlearrowleft$ ), 0.214-242 ( $\circlearrowleft$ ).

#### References

Beier M. 1963. Ordnung Pseudoscorpionidea (Afterskorpione). - Bestimmungsbücher zur Bodenfauna Europas. Berlin, Akademie-Verlag. 313 p.

Beron P. 1996. Geogarypidae and Olpiidae (Arachnida: Pseudoscorpionida) - new families for the fauna of Bulgaria. - Hist. nat. bulg., 6: 24.

ĆURČIĆ B. 1974. Arachnoidea. Pseudoscorpiones. - In: Catalogus Faunae Jugoslaviae. Vol. 3 (4). Ljubljana, Academie Slovene, 35 p.

DUMITRESCO M., T. ORGHIDAN. 1964. Contribution a la connaissance des pseudoscorpions de la Dobroudja. 1re note. - Ann. Speleol., 19: 599-630.

HARVEY M. S. 1990. Catalogue of the Pseudoscorpionida. - Manchester, Manchester University Press. 726 p.

HELVERSEN O. VON. 1966. Pseudoscorpione aus dem Rhein-Main Gebiet. - Senckenberg. Biol., 47: 131-150.

PAVESI P. 1876. Gli arachnidi turchi. - Atti Soc. Ital. Sci. Nat., 20 (1): 3-27.

Petrov B. 1997. A review of Bulgarian pseudoscorpions (Arachnida, Pseudoscorpionida). - In: Proc. 16th Europ. Coll. Arachnol., Siedlee (1996), 261-269.

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# Cheiridiidae H. J. Hansen (Arachnida: Pseudoscorpiones), едно ново семейство за фауната на България

Боян П. ПЕТРОВ

(Резюме)

За първи път се публикуват данни за срещането на представители от това семейство псевдоскорпиони в България. Ароснеігідіит ferum (Е. Simon) се съобщава от района на селата Калиманци и Горна Брезница (Струмска долина). Cheiridium museorum (Leach) се съобщава от с. Рибарица (Тетевенско) и с. Писанец (Природен парк "Русенски Лом"). Измервания на педипалпите и при двата вида не показват съществени отклонения от публикуваните в литературата биометрични данни.